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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/646,509	08/22/2003	Brice A. Johnson	091-0185	9658

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EXAMINER

AFTERGUT, JEFF H

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 11/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/646,509

Applicant(s)

JOHNSON ET AL.

Examiner

Jeff H. Aftergut

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 102

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 1, 2, 4, 6, 9, 10, 25, 26, 31, and 32 are rejected under 35 U.S.C. 102(b) as being anticipated by Koury for the same reasons as expressed in the office action dated 6-29-05 paragraph 2.

It should be noted that the placement heads in Koury are clearly fully capable of application of fiber over the entire surface of the mandrel, but that the mandrel surface was provided with recesses therein to receive the fibers from the placement heads. Note as depicted in Fig 5a, the placement head was capable of rotation about an axis perpendicular to the lay down surface. As such, the angular orientation of the placement head was easily adjusted (to accommodate placement into different angled grooves). As such, the device was clearly capable of placement over the entire surface of the mandrel. The amended claim language does not require that the mandrel surface be a smooth surface without grooves therein and thus does not distinguish the apparatus (which includes the mandrel) from the apparatus of Koury.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1-6, 9-15, 17-21, 23-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koury in view of the admitted prior art and either one of European Patent 198,744 or PCT WO 03/035380 optionally further taken with Ermert et al (the

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article entitled R U Reinforcing plastics with Robots?) for the same reasons as expressed in paragraph 4 of the Office action dated 6-29-05.

5. Claims 7, 8, 16, 21, 22, 36, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as set forth above in paragraph 4 further taken with Baxter, Jr. et al and any one of Turner et al Reinman, Gaubatz or Trimble for the same reasons as expressed in paragraph 5 of the Office action dated 6-29-05.

Response to Arguments

6. Applicant's arguments filed 9-30-05 have been fully considered but they are not persuasive.

The applicant essentially argues that because the reference to Koury was forming a different end product that the apparatus as presented in the reference was not capable of performing the specified functions. The applicant is advised that the claims at hand are not method claims. The material worked upon is given no weight in an apparatus claim. It is not clear in the claim whether the mandrel is part of the specified apparatus as claimed and additionally the condition of the mandrel is clearly not specified in the claim (i.e. that the mandrel has a continuous and smooth surface without grooves or recesses therein). As such, the mandrel assembly of Koury clearly satisfies the requirements of the claim as presented. Additionally, the device of Koury is clearly capable of application of the fiber material over not only the surface of the mandrel with the grooves therein but also over the exterior surface of the mandrel at any local thereon. The applicant is advised that one skilled in the art would have readily appreciated the need for being able to reorient the placement heads of Koury such that

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they were capable of application of the fibers into grooves which were not disposed at the same angle from one isogrid to another and as depicted in Figure 5a, the reference did provide for rotation of the placement head about an axis perpendicular to the placement surface (and thus the angle that the head made with the surface was capable of being altered). There is no reason to believe that the fiber placement device of Koury with the multiple heads was incapable of placement of the fibers over the entire surface of the mandrel. The fact that the device was used to make a materially different end product does not alter the conclusion that the machine is the same machine as claimed.

While the other prior art references may not teach multiple head arrangements, in some instances, these references were not cited to teach the same and one cannot show nonobviousness by attacking references individually where combinations of references have been applied. These references would have been combined with the reference to Koury for the reasons provided and would have established that one skilled in the art would have provided the placement heads of Koury with multi axial movement thereon in order to facilitate the formation of composites in a more efficient and cost effective manner.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references to Cahuzac et al (Heads T1-T4) as well as Bendarzewski et al (plural placement heads are suggested at column 7, lines 45-50) suggested that those skilled in the art were aware of the use of plural placement heads.

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8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff H. Aftergut whose telephone number is 571-272-1212. The examiner can normally be reached on Monday-Friday 7:15-345 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Dunn can be reached on 571-272-1171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jeff H. Aftergut
Primary Examiner
Art Unit 1733

JHA
November 10, 2005